

(No Model.)

A. A. HAWLEY.
FELTED FOOT-WEAR.

No. 379,220.

Patented Mar. 13, 1888.

Fig. 1.

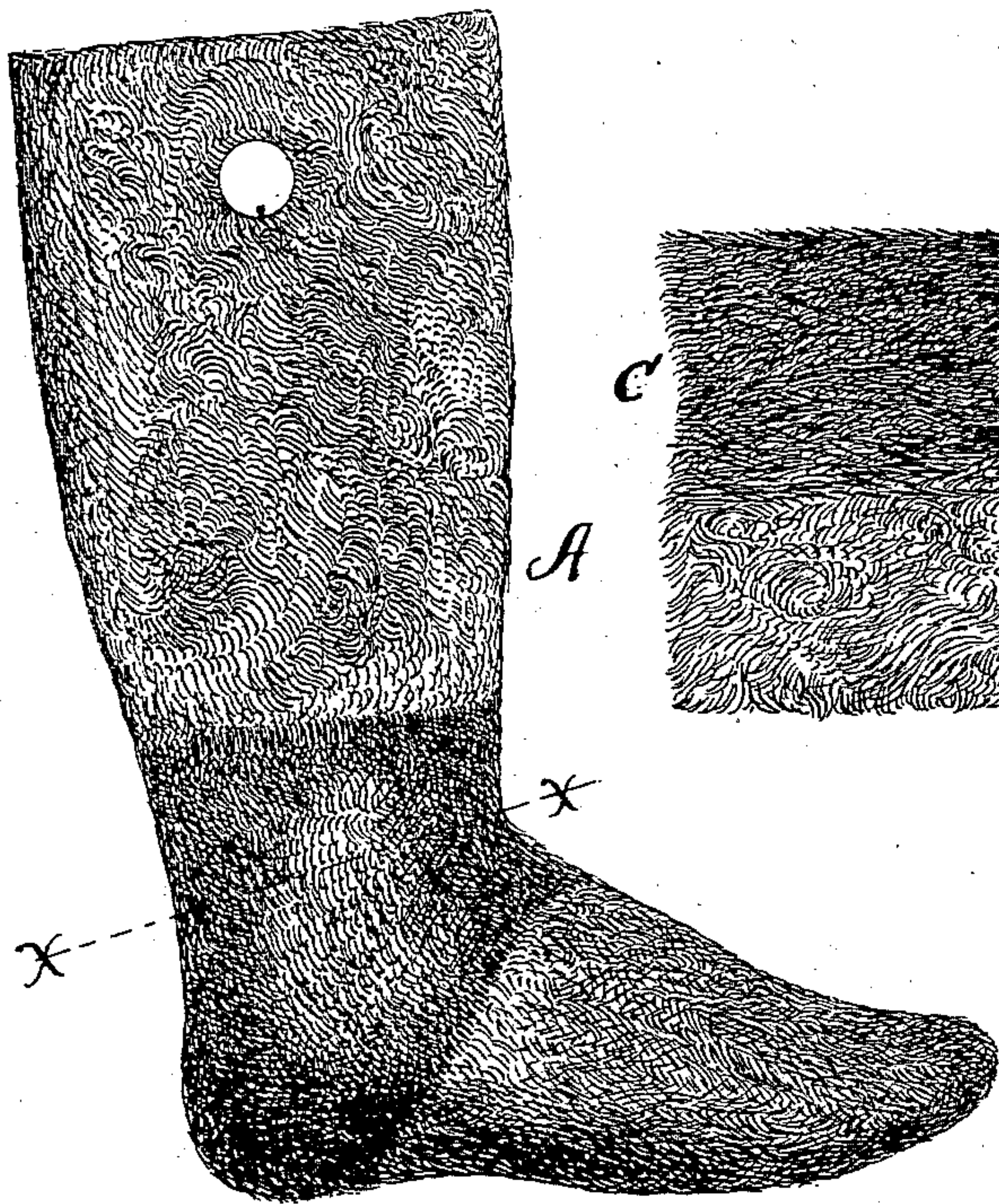
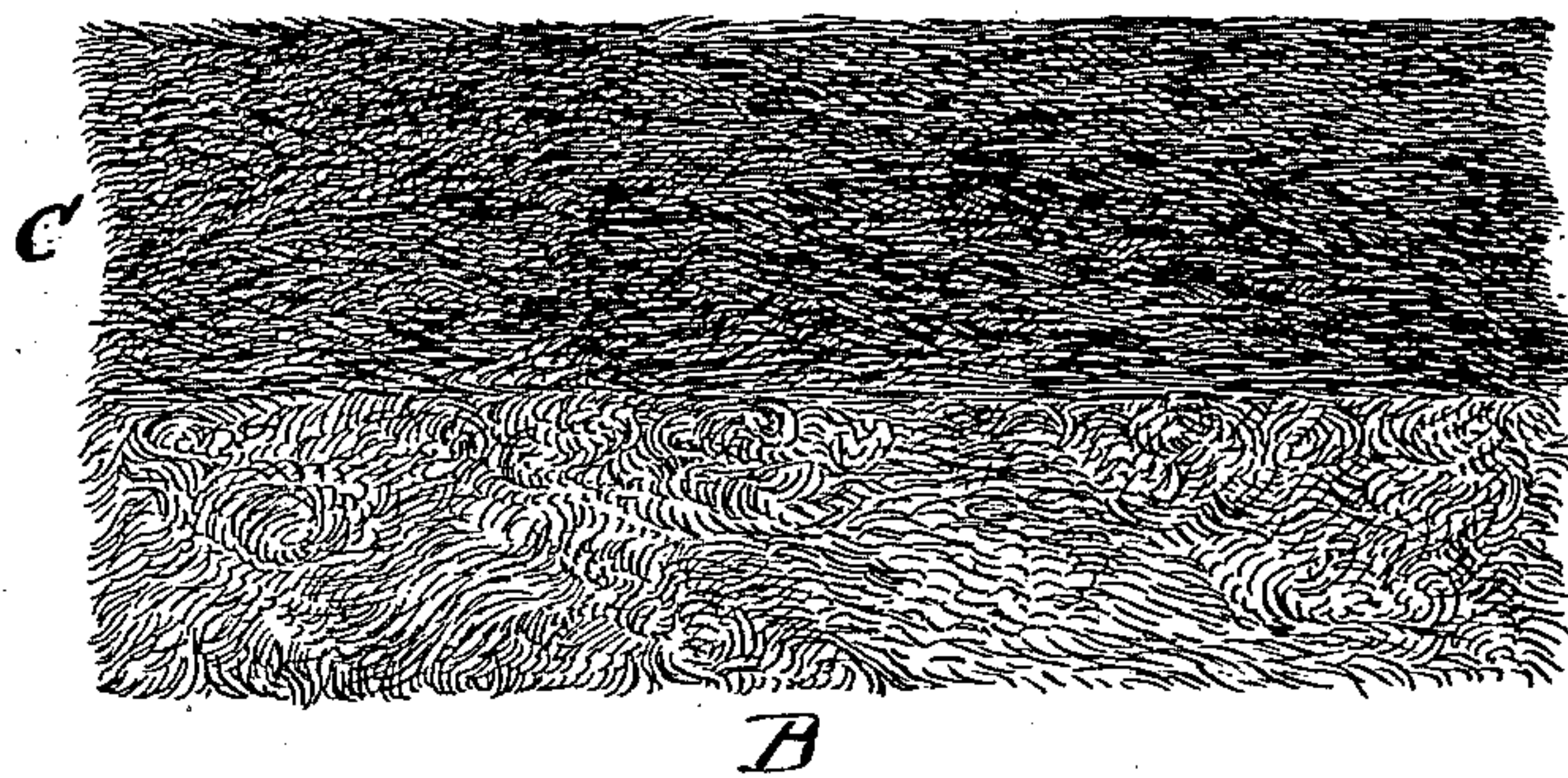


Fig. 2.



Witnesses:
Thos H. Steward.
A. Rawlings.

Inventor:
Alfred A. Hawley.
per W. H. Singleton.
Atty.

UNITED STATES PATENT OFFICE.

ALFRED A. HAWLEY, OF KENNEBUNK, MAINE.

FELTED FOOT-WEAR.

SPECIFICATION forming part of Letters Patent No. 379,220, dated March 13, 1888.

Application filed December 29, 1887. Serial No. 259,313. (No model.)

To all whom it may concern:

Be it known that I, ALFRED A. HAWLEY, a citizen of the United States, residing at Kennebunk, in the county of York and State of Maine, have invented certain new and useful Improvements in Felted Foot-Wear; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

Figure 1 is an elevation of a boot containing the invention. Fig. 2 is an exaggerated detail section on line *x x*, Fig. 1.

This invention relates to felted foot-wear, and has for its object to strengthen the parts more especially subject to wear. Various plans have been devised to accomplish this result. Felted foot-wear has been provided with an integument of textile fabric, either coextensive with the felt or only placed at the parts more liable to wear. Threads also have been wound about the felt. Also, the felt has been thickened, as in the sole.

My invention consists in impregnating the felt with a solution of rubber or gutta-percha, or a mixture of both, all being equivalents.

In the drawings hereto annexed, the letter A indicates an article of felted foot-wear, being in this instance a boot. This boot is made, in an ordinary way, of felt, and is lined, as at B, or not, as desired. This boot is taken and to its outside C is applied—say with a brush—a solution of rubber, gutta-percha, or a mixture of both. Sufficient of this is put on to make the boot firm and tough. It may be put in co-extensive with the felt, or only at the ankle, as shown in the drawings, or at any point desired. This treatment of the felt with the solution

provides the former with a covering or shell of the rubber or gutta-percha, or both, which is homogeneous therewith. The appearance of the article is the same, the solution sinking amid the fibers. With this solution the felt need only be of the ordinary thickness, without being increased to strengthen it, this being done by the solution. The boot will thus be more elastic and will yield. Not being so rigid, it is not so likely to be broken at the instep and ankle by the overshoe as is a thick boot. This solution also makes the boot turn mud, snow, and water better.

I am aware that it has been proposed to treat the outside or exterior surface of boots, shoes, gaiters, &c., with a solution of india-rubber or gutta-percha, so as to make them waterproof; also that it has been suggested that such articles might be made from a material consisting of a cotton or wool bat treated with such a solution; but I am not aware that any of these have proceeded to such a point as to make an article wherein the rubber or gutta-percha becomes homogeneous with the material of the article. By my invention I produce first a completed felt article, and then so treat it with the solution that the felt becomes impregnated with the solution, and a homogeneous article is formed, not an article with a covering simply of rubber or gutta-percha.

Having thus described my invention, what I claim is—

An article of felt foot-wear impregnated with rubber, gutta-percha, or both, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ALFRED A. HAWLEY.

Witnesses:

WALTER L. DANE,
CARL COUSENS.